(Adopted April 6, 1979)(Amended January 8, 1982)(Amended December 7, 1984)
(Amended January 10, 1986)(Amended May 5, 1989)(Amended December 1, 1989)
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RULE 1125. METAL CONTAINER, CLOSURE, AND COIL COATING OPERATIONS

(a) Applicability

This rule applies to all coating operations in the manufacturing and/or reconditioning of metal cans, drums, pails, lids, and closures. It also includes coating of the surface of flat metal sheets, strips, rolls, or coils during the manufacturing and/or reconditioning of metal containers, closures, and coils.

(b) Definitions

For the purpose of this rule, the following definitions shall apply:

(1) AEROSOL COATING PRODUCT is a pressurized coating product containing pigments or resins that is dispensed by means of a propellant, and is packaged in a disposable can for hand-held application.

(2) CLOSURE is any component which is used to close or seal a filled can, jar, or bottle.

(3) COATING APPLICATOR is any apparatus used to apply a surface coating.

(4) COATING LINE is any operation or process for applying, drying, or baking and/or curing surface coatings, together with associated equipment, such as a coating applicator, flash-off area, and oven.

(5) COIL is any flat metal sheet or strip that is rolled or wound in concentric rings.

(6) DRUM is any cylindrical metal shipping container larger than 12 gallons capacity but no larger than 110 gallons capacity.

(7) END SEALING COMPOUND is any compound which is applied to the can ends of a metal container and/or cover, and which functions as a gasket when the end is assembled.

(8) EXEMPT COMPOUNDS are any of the following compounds:

(A) Group I (General)

trifluoromethane (HFC-23)
pentafluoroethane (HFC-125)
1,1,2,2-tetrafluoroethane (HFC-134)
tetrafluoroethane (HFC-134a)
1,1,1-trifluoroethane (HFC-143a)

1,1-difluoroethane (HFC-152a)
chlorodifluoromethane (HCFC-22)
dichlorotrifluoroethane (HCFC-123)
2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
dichlorofluoroethane (HCFC-141b)
chlorodifluoroethane (HCFC-142b)
cyclic branched, or linear, completely fluorinated alkanes
cyclic branched, or linear, completely fluorinated ethers with no unsaturations
cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations
sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine

(B) Group II

methylene chloride
1,1,1-trichloroethane (methyl chloroform)
trichlorotrifluoroethane (CFC-113)
dichlorodifluoromethane (CFC-12)
trichlorofluoromethane (CFC-11)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)

The use of Group II compounds and/or carbon tetrachloride may be restricted in the future because they are toxic, potentially toxic, upper-atmosphere ozone depleters, or cause other environmental impacts. By January 1, 1996, production of chlorofluorocarbons (CFC), 1,1,1-trichloroethane (methyl chloroform), and carbon tetrachloride will be phased out in accordance with the Code of Federal Regulations Title 40, Part 82 (December 10, 1993).

(9) EXTERIOR BASE COATING is any coating applied to the exterior of a can body, end, or flat sheet to provide protection to the metal or to provide background for any subsequent printing operation.

(10) EXTERIOR END COATING is a coating applied to the exterior end of a can to provide protection to the metal.

(11) FOOD/BEVERAGE CAN is any metal container intended for packaging food or beverages.

(12) GRAMS OF VOC PER LITER OF COATING, LESS WATER AND LESS EXEMPT COMPOUNDS is the weight of VOC per combined volume of VOC and coating solids and can be calculated by the following equation:

$$\text{Grams of VOC per Liter of Coating, Less Water and Less Exempt Compounds} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

Where: W_s = weight of volatile compounds in grams
W_w = weight of water in grams
W_{es} = weight of exempt compounds in grams
V_m = volume of material in liters
V_w = volume of water in liters
V_{es} = volume of exempt compounds in liters

(13) HAND APPLICATION METHOD is the application of coatings using manually held, non-automatic equipment. Examples of this method include~~s~~, but are not limited to, application by paint brush, hand roller, trowel, spatula, dauber, rag, and sponge.

(14) HIGH-VOLUME, LOW-PRESSURE (HVLP) SPRAY is a coating application system which is designed to be operated at air pressures between 0.1 and 10.0 pounds per square inch gauge (psig) at the air cap of the spray gun.

(15) INK is any coating used in any operation that imparts color, design, alphabet, or numerals on an exterior surface of a metal container, closure, or coil.

(16) INTERIOR BASE COATING is any coating applied to the interior of a can body, end, or flat sheet to provide a protective lining between the product and the can.

(17) INTERIOR BODY SPRAY is any coating sprayed on the interior of the can body to provide a protective film between the product and the can.

(18) METAL CONTAINER, CLOSURE, AND COIL COATING is any VOC-containing coating applied to the surfaces of metal cans, drums, pails, lids, closures, or to the surface of flat metal sheets, strips, rolls, or coils during the manufacturing and/or reconditioning process.

(19) NECKER LUBRICANT is any fluid or solid lubricant applied to a can forming tool to reduce friction while reducing the can diameter to form a neck.

(20) OVERVARNISH is any coating applied directly over a design coating to reduce the coefficient of friction, to provide gloss, and to protect the finish against abrasion and corrosion.

(21) PAIL is any cylindrical metal shipping container of from 1-gallon to 12-gallon capacity and constructed of 29 gauge or heavier material.

(22) SOLVENT CLEANING OPERATION is the removal of loosely held uncured adhesives, uncured inks, uncured coatings, and contaminants from parts, products, tools, machinery, equipment, and general work areas. Contaminants include, but are not limited to, dirt, soil, and grease. In a cleaning process which consists of a series of cleaning methods, each distinct method shall constitute a separate solvent cleaning operation.

(23) THREE-PIECE CAN SIDE SEAM SPRAY is any coating sprayed on a welded, cemented, or soldered seam to protect the exposed metal.

(24) VOLATILE ORGANIC COMPOUND (VOC) is any volatile compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, methane, and exempt compounds.

(c) Requirements

(1) Any person shall not use or apply any coating on any coating line of the type designated below which contains any volatile organic compound in excess
of the following limits:

	VOC LIMITS	
	Grams per Liter of Coating, Less Water and Less Exempt Compounds	
COATING	g/L	lb/gal
Can Coating		
(A) Three-Piece Can Sheet Basecoat (exterior and interior and overvarnish)	225	1.9
(B) Two-Piece Can Exterior Basecoat and Overvarnish	250	2.1
(C) Inks	300	2.5

VOC LIMITS (Cont.)

COATING	Grams per Liter of Coating, Less Water and Less Exempt Compounds g/L	lb/gal
(D) Can Interior Body Spray		
(i) Two-Piece Can	440	3.7
(ii) Three-Piece Can	510	4.2
(E) Three-Piece Can Side Seam Spray	660	5.5
(F) End Sealing Compound		
(i) Food/Beverage Cans	440	3.7
(ii) Non-Food Cans	440	3.7
(After March 1, 1991)	0	0
(G) Drums, Pails, and Lids Coating		
(i) New		
Exterior	340	2.8
Interior	420	3.5
(ii) Reconditioned		
Exterior	420	3.5
Interior	510	4.2
(H) Necker Lubricants	100	0.8
Coil Coating	200	1.7

(2) Any person may comply with the provisions of paragraph (c)(1), and/or (c)(5) by using an emission control system, for reducing VOC emissions which has been approved in writing by the Executive Officer.

(A) The emission control system shall collect at least 90 percent by weight of the emissions generated using USEPA, ARB, and District methods specified in subparagraph (e)(2)(A) and have a destruction efficiency of at least 95 percent by weight, or

(B) The approved system shall reduce the VOC emissions when using non-compliant coatings to an equivalent or greater level that would be achieved by the provisions in paragraph (c)(1). The required efficiency of an emission control system at which an equivalent or greater level of VOC reduction will be achieved shall be calculated by the following equation:

$$C.E. = \left[1 - \left\{ \frac{(VOC_{LWc})}{(VOC_{LWn,Max})} \times \frac{1 - (VOC_{LWn,Max}/D_{n,Max})}{1 - (VOC_{LWc}/D_c)} \right\} \right] \times 100$$

Where:

C.E.	=	Control Efficiency, percent
VOC_{LWc}	=	VOC Limit of Rule 1125, less water and less exempt compounds, pursuant to subdivision (c).
$VOC_{LWn,Max}$	=	Maximum VOC content of non-compliant coating used in conjunction with a control device, less water and less exempt compounds.
$D_{n,Max}$	=	Density of solvent, reducer, or thinner contained in the non-compliant coating, containing the maximum VOC content of the multicomponent coating.
D_c	=	Density of corresponding solvent, reducer, or thinner used in the compliant coating system = 880g/L.

(3) Alternative Emission Control Plan

Owners and/or operators may comply with the provisions of paragraph (c)(1) by means of an Alternative Emission Control Plan pursuant to Rule 108.

(4) Transfer Efficiency

A person or facility shall not apply any coating subject to the provisions of this rule unless the coating is applied with properly operating equipment according to operating procedures specified by the equipment manufacturer or the Executive Officer or his designee, and by the use of one of the following methods:

(A) electrostatic application; or

(B) flow coat; or

(C) roll coat; or

(D) dip coat; or

(E) high-volume, low-pressure (HVLP) spray; or

(F) hand application methods; or

(G) such other coating application methods as are demonstrated to the Executive Officer to be capable of achieving at least 65 percent transfer efficiency and for which written approval of the Executive Officer has been obtained.

(5) Solvent Cleaning Operations; Storage and Disposal of VOC-containing Materials

All solvent cleaning operations and the storage and disposal of VOC-containing materials used in solvent cleaning operations shall be carried out pursuant to Rule 1171 - Solvent Cleaning Operations.

(6) Recordkeeping

Notwithstanding provisions of subdivision (g), records shall be maintained pursuant to Rule 109, except that usage records for complying inks may be grouped by ink categories and each category constitutes a different VOC content.

(d) Prohibition of Specification and Sale

(1) A person shall not solicit or require any other person to use, in the District, any coating or combination of coatings to be applied to any metal container, closure, or coil subject to the provisions of this rule that does not meet the limits and requirements of this rule, or of an Alternative Emission Control Plan (AECP) approved pursuant to the provisions of paragraph (c)(3) of this rule.

(2) The requirements of paragraph (d)(1) shall apply to all written or oral agreements executed, entered into, or renewed including options after December 1, 1989.

(3) A person shall not sell, offer for sale, use, or apply any coating within the district, applied to any metal container, closure, or coil subject to the provisions of this rule, containing the following exempt compounds:

methylene chloride,
trifluoromethane (FC-23),
trichlorotrifluoroethane (CFC-113),
dichlorodifluoromethane (CFC-12),
trichlorofluoromethane (CFC-11),
dichlorotetrafluoroethane (CFC-114), and
chloropentafluoroethane (CFC-115).

(4) A person shall not sell or offer for sale for use within the District any coating which contains volatile organic compounds in excess of the limits specified in this rule for any application governed by this rule unless the label on the product or the data sheets for the product clearly bear the warning that the coating shall not be used unless compliance with the rule can be achieved.

(e) Test Methods

(1) The VOC content of coatings subject to the provisions of this rule shall be determined by the following methods:

(A) United States Environmental Protection Agency (USEPA) Reference Method 24 (Code of Federal Regulations Title 40 Part 60, Appendix A,). The exempt compound content shall be determined by SCAQMD Method 303 (Determination of Exempt Compounds) contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual; or,

(B) SCAQMD Method 304 [Determination of Volatile Organic Compounds (VOC) in Various Materials] contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual.

(C) Exempt Perfluorocarbon Compounds

The following classes of compounds:

cyclic, branched, or linear, completely fluorinated alkanes;

cyclic, branched, or linear, completely fluorinated ethers with no unsaturations;

cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and

sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine,

will be analyzed as exempt compounds for compliance with subdivision (c), only when manufacturers specify which individual compounds are used in the coating formulation. In addition, the manufacturers must identify the USEPA, California Air Resources Board, and the SCAQMD approved test methods used to quantify the amount of each exempt compound.

(2) Determination of Efficiency of Emission Control System

(A) The efficiency of the collection device of the emission control system as specified in paragraph (c)(2) shall be determined by the USEPA method cited in 55 Federal Register 26865 (June 29, 1990), or any other method approved by the USEPA, the California Air Resources Board, and the SCAQMD.

(B) The efficiency of the control device of the emission control system as specified in paragraph (c)(2) and the VOC content in the control

device exhaust gases, measured and calculated as carbon, shall be determined by USEPA Test Methods 25, 25A, or SCAQMD Test Method 25.1 (Determination of Total Gaseous Non-Methane Organic Emissions as Carbon) as applicable. USEPA Test Method 18, or ARB Method 422 shall be used to determine emissions of exempt compounds.

(3) The transfer efficiency of alternative coating application methods shall be determined in accordance with the SCAQMD method "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989".

(4) Multiple Test Methods

When more than one test method or set of test methods are specified for any testing, a violation of any requirement of this rule established by any one of the specified test methods or set of test methods shall constitute a violation of this rule.

(5) All test methods referenced in this section shall be the most recently approved version.

(f) Rule 442 Applicability

Any metal container, closure, or coil coating operation or facility which is exempt from all or a portion of this rule shall comply with the provisions of Rule 442.

(g) Exemptions

(1) The provisions of this rule shall not apply to the spray coating of one gallon per day or less of coatings at a single facility.

(2) The provisions of this rule shall not apply to aerosol coating products.